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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/631,965	08/01/2003	Shibin Hu	4293-4	2524
23117	7590	11/15/2006	EXAMINER	
NIXON & VANDERHYE, PC 901 NORTH GLEBE ROAD, 11TH FLOOR ARLINGTON, VA 22203			ANTHONY, JOSEPH DAVID	
			ART UNIT	PAPER NUMBER
			1714	

DATE MAILED: 11/15/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

**Application No.**

10/631,965

**Applicant(s)**

HU, SHIBIN

**Examiner**

Joseph D. Anthony

**Art Unit**

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 06/06/06, 07/24/06 and 08/22/06.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 31-47 is/are pending in the application.
- 4a) Of the above claim(s) 47 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 31-46 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |                                                                                                                       |                                                                                         |
|-----------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                                                      | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                  | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____                                                |

## **FINAL REJECTION**

### ***Election/Restrictions***

1. Newly submitted claim 47 is directed to a method of increasing the octane number and improving the anti-knock properties of gasoline is independent or distinct from the fuel oil additive and gasoline antiknock agent invention originally claimed because the originally claimed fuel oil additive and gasoline antiknock agent can be used as surface active agents in the cleaning of textiles.

Since applicant has received an action on the merits for the originally presented invention, this invention has been constructively elected by original presentation for prosecution on the merits. Accordingly, claim 47 is withdrawn from consideration as being directed to a non-elected invention. See 37 CFR 1.142(b) and MPEP § 821.03.

### ***Specification***

2. The amendments filed 06/06/06, 07/24/06 and 08/22/06 are objected to under 35 U.S.C. 132(a) because they introduce new matter into the disclosure. 35 U.S.C. 132(a) states that no amendment shall introduce new matter into the disclosure of the invention. Some (certainly not all) specific instances of the added material which is not supported by the original disclosure is as follows: 1) In the amendment filed 06/06/06 the changes on page 9 wherein the concentration range was changed from 40-80% to 5-80%. Also wherein in the originally filed specification on page 9 was the statement "(wrong number "40" in the original specification, translator)" set forth? Since it was not there how can it be now canceled? 2) In the amendment filed 07/24/06 the addition of

"heavy oil" and "ethers" on page 2, the additions made to additional components as set forth on page 7, the changes made to the concentration amounts as set forth on pages 12, 14 18-19, 21 of the substitute specification. 3) In the amendment filed 08/22/06, the new matter is the underline portion as set forth on page 2, lines 9-10 and the changes to the concentration amounts as set forth in the last paragraph on page 2.

Applicant is required to cancel the new matter in the reply to this Office Action.

***Claim Rejections - 35 USC § 112***

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. Claims 34-36 and 41-43 rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. It is noted that applicant has wholly failed to point out where in the originally filed disclosure there is support for the listed concentration ranges.

***Claim Rejections - 35 USC § 102***

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

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A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 31-46 are rejected under 35 U.S.C. 102(b) as being anticipated by Andress U.S. Patent Number 2,851,417.

Andress teaches improved petroleum fractions, such as gasolines, fuels and lubricating oils. More particularly it relates to a new class of multi-functional additives for such fractions and to a method for their preparation. The said additives are complex metal alkoxy salts of organic acids, see abstract, column 1, line 65 to column 2, line 51 and column 3, lines 13-46. Specific examples of such organic acid metal salts are set forth in column 3, lines 68 to column 4, line 7. Applicant's claims are deemed to be anticipated over the examples, Tables 1-IV and column 3, line 68 to column 4, line 11.

8. Claims 31-46 are rejected under 35 U.S.C. 102(b) as being anticipated by Sandy et al. U.S. Patent Number 2,935,974 or Kissa U.S. Patent Number 3,013,869.

Sandy et al teach a hydrocarbon fuel for spark ignition internal combustion engines containing from about 0.05 gram to about 50 grams per gallon of a lithium salt

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of a secondary carboxylic acid wherein said carboxylic acid contains from 4 to 18 carbon atoms, see abstract, column 2, lines 4-40, and column 5, lines 29-62. Applicant's claims are deemed to be anticipated over the Examples.

Kissa teaches new chemical compositions and particularly to new and valuable hydrocarbon fuels for spark-ignited internal combustion engines. The present invention is particularly directed to a method for putting in solution in liquid hydrocarbons lithium salts of branched chain carboxylic acids. It has been found that the lithium salts of branched chain carboxylic acids improve the antiknock characteristics of gasolines, see abstract, column 1, line 45 to column 2, line 15, and column 3, lines 1-7. Applicant's claims are deemed to be anticipated over the examples, especially see examples 1-3, and 11-17.

9. Claims 31-46 are rejected under 35 U.S.C. 102(b) as being anticipated by Orelup U.S. Patent Number 2,097,773.

Orelup teaches stabilized colored gasoline. Examples of stabilizing agents found suitable for such a purpose are the metal salts of fatty acid compounds and metal resin compounds such as aluminum palmitate, aluminum stearate, magnesium oleate, magnesium stearate, magnesium resinate, magnesium palmitate, zinc oleate, zinc stearate, calcium stearate, and calcium oleate, see abstract and column 1, lines 26-32. Applicant's claims are deemed to be anticipated over column 1, lines 26-32 and the Example in column 1, lines 43-53.

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10. Claims 31-43 and 45 are rejected under 35 U.S.C. 102(b) as being anticipated by Hawkins et al. U.S. Patent Number 5,449,387.

Hawkins et al teach novel cerium (IV) oxidic compounds, well suited as catalysts, e.g., for the clean combustion of hydrocarbon fuels and for the "drying" of paint compositions, each Ce(IV) atom of which being coordinated with two anions of an organic oxyacid advantageously having a pKa greater than 1, preferably greater than 2, or a mixture of such oxyacids, and the oxidic oxygen atom or atoms of which being other than those comprising the organic oxyacids; representative such novel cerium (IV) oxidic compounds, whether yellow crystalline solids or yellow liquids, have the formula:  $(H_2O)_p[CeO(A)_2(AH)_n]_m$  in which the radicals A, which may be the same or different, are each the residue of an organic oxyacid of formula AH, p is an integer ranging from 0 to 5, n ranges from 0 to 2 and m is an integer ranging from 1 to 12, see abstract, column 4, lines 9-68, examples and claims. Applicant's claims are deemed to be anticipated over Examples 23 and 24. Note that cerium octonate is taught in Example 23. Also note that and sodium 2-ethylhexonoate is taught as a reactant to make the corresponding cerium salt in example 24.

11. Claims 31-43, and 45 are rejected under 35 U.S.C. 102(b) as being anticipated by Brisset et al. U.S. Patent Number 4,568,360.

Brisset et al. teach a mixed organometallic composition suitable for use as fuel additives contains an organic acid salt of at least one metal from the lanthanide group and of at least one metal selected from the group formed by manganese and the metals

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of the iron group wherein the ratio of total number of metal atoms to number of organic acid equivalents is greater than the stoichiometric proportion, and preferably greater than 2, see abstract, column 2, lines 22-30 and column 3, lines 12-23. Applicant's claims are deemed to be anticipated over Examples 1 and 6-7.

12. Claims 44 and 46 are rejected under 35 U.S.C. 103(a) as obvious over Hawkins et al. U.S. Patent Number 5,449,387 or Brisset et al. U.S. Patent Number 4,568,360.

Hawkins et al and Brisset et al have both been described above. Hawkins et al and Brisset et al can be said to differ from applicant's claimed invention in that there is not a direct teaching (i.e. by way of an example) to either: 1) adding the taught organic metallic salts to gasoline or 2) to where the added organic metallic salts are added at a concentration that is within applicant's claimed concentration range. It would have been obvious to one having ordinary skill in the art to use the broad disclosure of each patent as strong motivation to actually add the taught organic metallic salts to gasoline since such is directly suggested through each patent. It would also have been obvious to one having ordinary skill in the art to use the disclosures of each patent as motivation to actually add the taught organic metallic salts to a fuel oil product, e.g. gasoline, within applicant's claimed concentration range since such concentration ranges are within/overlap the broad concentration ranges disclosed by each reference.



### ***Response to Arguments***

13. Applicant's arguments filed 06/06/06, 07/24/06 and 08/22/06 have been fully considered but are not persuasive to put the application in condition for allowance. Additional examiner comments are set forth next. As stated above, both applicant's specification and certain claims have been rejected as containing new matter. The applicant has failed to provide any standard, such as an officially certified English language translation of the China foreign priority document, by which the examiner can truly and accurately evaluate if the changes made to the specification and claims are in fact only translation errors as asserted by applicant.

The prior-art rejections are all deemed to be valid even though applicant's claims use the most restrictive claim language of "consists of" in the preambles of independent claims 31 and 38, because the claims read directly on oil soluble salt of general formula MR. All the applied prior-art references teach these compounds. The fact that the prior art might use mixtures of these compounds or use these compounds in admixture with other different additives is noted, but such is not deemed to be a patentable distinction. Applicant's claims can and are rejected over the disclosure of the applied prior-art in regards to their metal salt compounds that correspond to applicant's claimed metal salt compounds prior to their use in admixtures with other components.

### ***Conclusion***

14. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

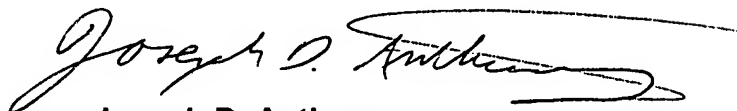
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§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

***Examiner Information***

15. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Joseph D. Anthony whose telephone number is (571) 272-1117. If attempts to reach the examiner are unsuccessful, the examiner's supervisor, Vasu Jagannathan, can be reached on (571) 272-1119. The centralized FAX machine number is (571) 273-8300. All other papers received by FAX will be treated as Official communications and cannot be immediately handled by the Examiner.



**Joseph D. Anthony**  
**Primary Patent Examiner**  
Art Unit 1714

11/13/06